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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,040	09/26/2003	Michael Thess	17346-0009	8053

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EXAMINER

ABEL JALIL, NEVEEN

ART UNIT PAPER NUMBER

2165

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/673,040	THESS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Neveen Abel-Jalil	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/4/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### **Remarks**

1. The preliminary amendment filed on May 12, 2004 has been received and entered.  
Claims 1-9 are pending.

### ***Specification***

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Applicant's Specification, page 1 contains embedded hyperlink that should be deleted.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 6, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 24 (last limitation), recite "when a given termination condition is fulfilled" rendering the claim to be indefinite. There's no definition or meaning assigned to the condition in the first place in order for it to be presented and met. Conditions are malleable and can be changed with time therefore rendering the claim indefinite.

Claims 6, and 7 recite similar limitation thus carry the same deficiency.

*Allowable Subject Matter*

5. Claims 1, 6, and 7 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

6. The following is a statement of reasons for allowable subject matter:

Jay Ayres, Johannes Gehrke, Tomi Yiu, and Jason Flannick. Sequential Pattern Mining using A bitmap Representation. Dept. of Computer Science, Cornell University. July 2002 (hereafter Ayres et al.).

Agrawal et al. (U.S. Patent No. 6,006,223) teaches sequential patterns to find user trends in a database.

Hellerstein et al. (U.S. Patent No. 6,996,551 B2) teaches partially periodic event patterns in a database.

Agrawal et al. (U.S. Patent No. 6,308,172) teaches partitioning a database based on timestamp patterns.

The prior art of record (Ayres et al. -NPL literature-and- Agrawal et al.- U.S. Patent No. 6,006,223-and- Hellerstein et al.-U.S. Patent No. 6,996,551 B2-and-Agrawal et al. -U.S. Patent No. 6,308,172) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim), c) determining a set  $L_k$  ( $k > 2$ ) of large sequences from the set  $D$  of transactions, the large sequences of set  $L_k$  each comprising exactly  $k$  items of record  $E$  in a respective order  $R_{\text{sub.LK}}$ , and an assigned support value  $S_{\text{sub.LK}}$  on the sequence  $D$  of

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transactions each being greater than or equal to the given support value S, and nothing but sequences comprising two of the large sequences of set L<sub>k-1</sub>, as partly overlapping partial sequences, with the respective order R.sub.LK-1, being taken into account in determining set L<sub>k</sub>, as claimed in Independent claims 1, 6, and 7.

Dependent claims 2-4, 5, and 8-9 being further limiting to the Independent claim 1, therefore, also allowed.

7. Claims 2-4, 5, and 8-9 are dependent on claim 1, and would be allowable once the 35 U.S.C. 112, 2nd paragraph rejection to the Independent claim is overcome.

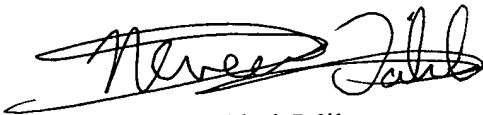
### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Naveen Abel-Jalil', with a stylized flourish at the end.

Naveen Abel-Jalil  
March 7, 2006